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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/649,488	08/27/2003	Joseph L. McJunkins	7041C	5867

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EXAMINER	
SHOSHO, CALLIE E	
ART UNIT	**PAPER NUMBER**
1714	

DATE MAILED: 06/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/649,488	MCJUNKINS ET AL.	
	Examiner	Art Unit	
	Callie E. Shosho	1714	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *24 February 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3-5,7,8 and 10-12* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3-5,7,8 and 10-12* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. All outstanding rejections are overcome by applicants' amendment filed 2/24/06.

The new grounds of rejection set forth below are necessitated by applicants' amendment and thus, the following action is final.

Claim Objections

2. Claim 7 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

Claim 7, which depends on claim 1, recites that the alkyd-stabilized acrylic dispersion has non-volatile materials content of greater than about 70% while claim 1 has been amended to recite that the alkyd-stabilized acrylic dispersion has a non-volatile materials content of greater than 85%. Thus, claim 7 fails to further limit the scope of the claim on which it depends, namely claim 1, given that claim 7 is broader than claim 1. That is, while claim 1 is limited to alkyd-stabilized acrylic dispersion with non-volatiles material content of greater than 85%, claim 7 includes alkyd-stabilized acrylic dispersion with non-volatile materials content of greater than about 70% which includes amounts of non-volatile materials outside the scope of claim 1.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 8 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The scope of claim 8 is confusing given that the claim depends on a cancelled claim, namely, claim 2.

Claim Rejections - 35 USC § 102

5. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

6. Claims 1, 4-5, 7-8, and 10-12 are rejected under 35 U.S.C. 102(b) as being anticipated by EP 555503.

The disclosure is adequately set forth in paragraph 4 of the office action mailed 8/24/05 and is incorporated here by reference.

Claim Rejections - 35 USC § 103

7. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

8. Claims 1, 7, and 10-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nishikawa et al. (U.S. 4,388,427) in view of EP 555503.

Nishikawa et al. disclose ink comprising pigment, ink solvent including petroleum distillates, i.e. paraffinic hydrocarbon, and alkyd-stabilized acrylic dispersion wherein the dispersion comprises alkyd resin obtained from triglyceride oil such as soybean oil or linseed oil, acrylic monomer including up to 30% hydroxy functional monomer, and chain transfer agent (col. 2, line 32, col.3, lines 1-7, 18-26, 27-29, 31-33, 39-43, and 55-58, col.4, lines 6-7, example 6, and Table 2).

The difference between Nishikawa et al. and the present claimed invention is the requirement in the claims of specific type of alkyd-stabilized acrylic dispersion.

EP 555503, which is drawn to coating composition comprising non-aqueous alkyd stabilized acrylic dispersion, discloses the use of alkyd which possesses z-average molecular weight of 10,000-250,000, oil length of 65-85%, acid value less than 20, non-volatile materials content greater than about 70%, and viscosity less than 60,000 cP measured using Brookfield viscometer with #3 spindle at 12 rpm wherein the alkyd-stabilized acrylic dispersion has non-volatile materials content of about 75% or more (page 4, lines 7-12 and 15-19). The motivation for using such alkyd-stabilized acrylic dispersion is that it is stable, non-gritty, filterable, and possesses low viscosity (page 3, lines 15-18).

In light of the motivation for using specific type of alkyd-stabilized acrylic dispersion disclosed by EP 555503 as described above, it therefore would have been obvious to one of ordinary skill in the art to use such dispersion in Nishikawa et al., and thereby arrive at the claimed invention.

9. Claims 3 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wakimoto et al. (U.S. 3,734,872) in view of EP 555503.

Wakimoto et al. disclose ink comprising pigment, ink solvent including naphtha, and alkyd stabilized acrylic dispersion wherein the dispersion comprises alkyd resin obtained from triglyceride oil such as soybean oil or sunflower oil, acrylic monomer including 1-30% hydroxy functional monomer, and oil (col.1, lines 17-21, col.2, lines 42-49 and 56-64, col.3, lines 15 and 70-72, col.6, lines 41-44, col.8, lines 37-42, and example 7).

Further, col.4, lines 54-59 disclose that the ratio of stabilizer/monomer present is 70/30 to 10/90 while col.7, lines 17-22 disclose that the ink comprises up to 50% pigment based on the amount of monomer present. Thus, it is calculated that the ink comprises 15-45 % (0.5x30-0.5x90) pigment while from example 7, it is seen that the ink comprises 70% (combined) dispersion and pigment and 25% varnish. Given that it is well known, as found in *Printing Paper & Inks* (page 224) that varnish comprises solvent, resin, and/or oil, it follows that the ink comprises up to 25% solvent.

The difference between Wakimoto et al. and the present claimed invention is the requirement in the claims of specific type of alkyd-stabilized acrylic dispersion.

EP 555503, which is drawn to coating composition comprising non-aqueous alkyd stabilized acrylic dispersion, discloses the use of alkyd which possesses z-average molecular weight of 10,000-250,000, oil length of 65-85%, acid value less than 20, non-volatile materials content greater than about 70%, and viscosity less than 60,000 cP measured using Brookfield viscometer with #3 spindle at 12 rpm wherein the alkyd-stabilized acrylic dispersion has non-volatile materials content of about 75% or more (page 4, lines 7-12 and 15-19). The motivation

for using such alkyd-stabilized acrylic dispersion is that it is stable, non-gritty, filterable, and possesses low viscosity (page 3, lines 15-18).

It is noted that while EP 555503 broadly discloses that the alkyd-stabilized acrylic dispersion is used in coating compositions (page 5, line 24), there is no disclosure that the alkyd-stabilized acrylic dispersion is suitable for use in inks. On the one hand, the broad disclosure of coating composition clearly encompasses inks that are applied to or coat paper. On the other hand, as set forth in col. l, lines 17-18 of Wakimoto et al., both paints and inks utilize alkyd stabilized acrylic dispersions. Thus, it is clear that alkyd stabilized acrylic dispersions suitable for use in paint, as disclosed by EP 555503, would also be suitable for use in inks, as disclosed by Wakimoto et al.

In light of the motivation for using specific type of alkyd-stabilized acrylic dispersion disclosed by EP 555503 as described above, it therefore would have been obvious to one of ordinary skill in the art to use such dispersion in Wakimoto et al., and thereby arrive at the claimed invention.

10. Claims 3 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Amon et al. (U.S. 4,966,6280 in view of EP 555503 and Wakimoto et al. (U.S. 3,734,872).

Amon et al. disclose ink comprising 20-50 parts base comprising binder and 10-60 parts alkyd stabilized acrylic dispersion, 50-80 parts pigment, and no more than 12% solvent (col.1, lines 8-13, col.7, lines 25-30 and 39-48, col.9, lines 25-43, and col.5, lines 48-51).

The difference between Amon et al. and the present claimed invention is the requirement in the claims of viscosity of the alkyd stabilized acrylic dispersion.

EP 555503, which is drawn to coating composition comprising non-aqueous alkyd stabilized acrylic dispersion, discloses the use of alkyd which possesses z-average molecular weight of 10,000-250,000, oil length of 65-85%, acid value less than 20, non-volatile materials content greater than about 70%, and viscosity less than 60,000 cP measured using Brookfield viscometer with #3 spindle at 12 rpm wherein the alkyd-stabilized acrylic dispersion has non-volatile materials content of about 75% or more (page 4, lines 7-12 and 15-19). for using such alkyd-stabilized acrylic dispersion is that it is stable, non-gritty, filterable, and possesses low viscosity (page 4, lines 20-21).

It is noted that while EP 555503 broadly discloses that the alkyd stabilized acrylic dispersion is used in coating compositions (page 5, line 24), there is no disclosure that the alkyd-stabilized acrylic dispersion is suitable for use in inks. On the one hand, the broad disclosure of coating composition clearly encompasses inks that are applied to or coat paper. On the other hand, as set forth in col. 1, lines 17-18 of Wakimoto et al., both paints and inks utilize alkyd stabilized acrylic dispersions. Thus, it is clear that alkyd stabilized acrylic dispersions suitable for use in paint, as disclosed by EP 555503, will also be suitable for use in inks, as disclosed by Amon et al.

In light of the motivation for using alkyd stabilized acrylic dispersion with specific viscosity disclosed by EP 555503 as described above, it therefore would have been obvious to one of ordinary skill in the art to use dispersion with such viscosity in Amon et al. in order to produce ink with excellent dry time, and thereby arrive at the claimed invention.

Response to Arguments

11. Applicants' arguments filed 2/24/06 have been fully considered but they are not persuasive.

Specifically, applicants argue that EP 555503 is no longer a relevant reference against the present claims given that there is no disclosure in EP 555503 that the weight ratio of the alkyd-stabilized acrylic dispersion to the pigment dispersion is from about 45:55 to about 55:45 as now required in all the present claims.

However, it is noted that the present claims require that the ink comprise pigment or pigment dispersion. Thus, the use of a pigment dispersion as well as the weight ratio of the alkyd-stabilized acrylic dispersion to the pigment dispersion is not required in the present claims. That is, the present claims encompass ink that (i) comprises pigment or (ii) comprises pigment dispersion with specific weight ratio of the alkyd-stabilized acrylic dispersion to the pigment dispersion.

Given that EP 555503 discloses the use of pigment and not pigment dispersion, it is not required that EP 555503 meet the limitation in the present claims regarding the weight ratio of the alkyd-stabilized acrylic dispersion to the pigment dispersion.

Applicants argue that there is no motivation to combine Nishikawa et al. or Wakimoto et al. with EP 555503 given that EP 555503 only discloses the use of alkyd –stabilized acrylic dispersion in coating composition and not ink. Applicants argue that a coating composition is very different from an ink.

However, applicants' attention is drawn to MPEP 2141.01 (a) which discloses that a reference may be relied on as a basis for rejection of an applicants' invention if it is "reasonably pertinent to the particular problem with which the inventor is concerned." A reasonably pertinent reference is further described as one which "even though it maybe in a different field of endeavor, it is one which, because of the matter with which it deals, logically would have commended itself to an inventor's attention in considering his problem." EP 555503 is, therefore, a reasonably pertinent reference, because it teaches the use of alkyd-stabilized acrylic dispersion identical to that presently claimed wherein the alkyd-stabilized acrylic dispersion is stable, filterable, and possesses low viscosity which are especially pertinent to the present invention where it is important that the ink possess good storage stability as well as low viscosity so as not to clog the printer nozzles.

Further, it is noted that col.1, lines 17-18 of Wakimoto et al. disclose that the both paints and inks utilize alkyd-stabilized acrylic dispersion. Thus, it is clear that an alkyd-stabilized acrylic dispersion suitable for use in paint, as disclosed by EP 555503, would also be suitable for use in ink as disclosed by either Amon et al., Nishikawa et al., or Wakimoto et al.

Applicants also argue that in order to establish a *prima facie* case of obviousness, all claim limitations must be taught or suggested by the prior art and that the cited references do not teach or suggest all of the limitations of present claim 7.

However, given that EP 555503 teaches the use of alkyd-stabilized acrylic dispersion with non-volatile materials content of greater than about 75% and viscosity less than 60,000 cP, preferably less than 10,000 cP, as measured using Brookfield viscosity with #3 spindle at 12 rpm

which clearly overlaps the viscosity as presently claimed, it appears that the combination of Nishikawa et al. or Wakimoto et al. with EP 5555503 does meet all the limitations of present claim 7. Clarification is requested.

Applicants also argue that there is no disclosure in Amon et al. of alkyd stabilized acrylic dispersion, particularly one having non-volatile materials content of greater than 85%.

It is agreed that there is no disclosure in Amon et al. of alkyd-stabilized acrylic dispersion as presently claimed. This is why Amon et al. is used in combination with EP 555503 which discloses alkyd-stabilized acrylic dispersion with non-volatile materials content of greater than about 75% typically approaching 100% (col.2, lines 45-50).

Applicants also argue that EP 555503 does not disclose ink composition utilizing the alkyd-stabilized acrylic dispersion.

It is agreed that there is no disclosure in EP 555503 of ink, however, as set forth above, it is the examiner's position that EP 555503 is a reasonably pertinent reference against the present claims given that it teaches the use of alkyd-stabilized acrylic dispersion identical to that presently claimed wherein the alkyd-stabilized acrylic dispersion is stable, filterable, and possesses low viscosity which is especially pertinent to the present invention where it is important that the ink possess good storage stability as well as low viscosity so as not to clog the printer nozzles.

Applicants also argue that there is no teaching, suggestion, or incentive to combine the teachings of the cited references to show applicants' claimed invention.

However, it is noted that each of Nishikawa et al., Wakimoto et al., and Amon et al. disclose ink comprising alkyd-stabilized acrylic dispersion, however, there is no disclosure of specific alkyd-stabilized acrylic dispersion as presently claimed. This is why each reference is combined with EP 555503 which teaches alkyd-stabilized acrylic dispersion as presently claimed. Further, EP 555503 discloses motivation for using such alkyd-stabilized acrylic dispersion, namely, that it is stable, filterable, and possesses low viscosity which are all functions relevant to the present invention.

Thus, given that EP 555503 is a reasonably pertinent reference that discloses alkyd-stabilized acrylic dispersion as presently claimed and also provides motivation for its use, it is the examiner's position that the combination of Nishikawa et al., Wakimoto et al., or Amon et al with EP 555503 is proper.

Conclusion

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Callie E. Shosho whose telephone number is 571-272-1123. The examiner can normally be reached on Monday-Friday (6:30-4:00) Alternate Fridays Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 571-272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Callie E. Shosho
Primary Examiner
Art Unit 1714

CS
6/16/06